

**BELASPIDIA LONGICAUDA, NEW SPECIES, THE FIRST NEARCTIC
BELASPIDIA (HYMENOPTERA: CHALCIDIDAE)**

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Abstract.—*Belaspidia longicauda*, new species, is described from specimens collected in California. Diagnostic characters for the female and male are illustrated. *Belaspidia longicauda* is incorporated into existing keys to world species of *Belaspidia*. The genus *Belaspidia* is recorded for the first time in the Nearctic Region; three other species occur in the Palearctic Region.

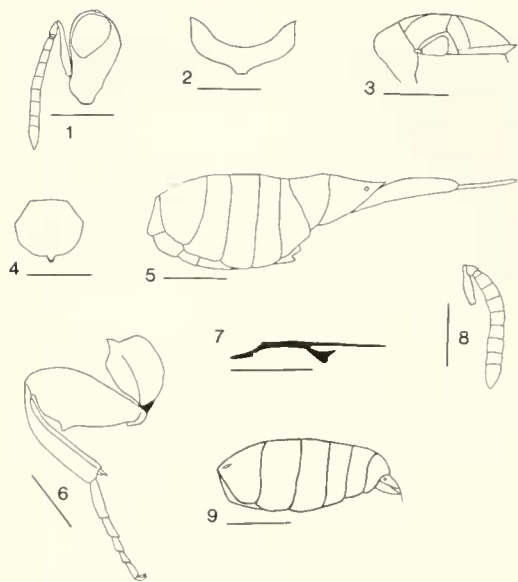
Prior to this paper, the genus *Belaspidia* contained only three species, all Palearctic. While examining material for a survey of Chalcididae in California, I found specimens of a Nearctic *Belaspidia*. Further study showed this to be a new species, representing the first record of the genus *Belaspidia* in the Nearctic Region and the fourth species in the genus. I take this opportunity to describe this species as it greatly contributes to the knowledge of the zoogeography and systematics of the family Chalcididae. Host information is known only for *Belaspidia obscura* Masi. This species is a pupal parasitoid of *Aperona cremilella* Brd. (Lepidoptera: Psychidae) (Bouček 1951a, Nikolskaya 1952).

Belaspidia may be distinguished from other Chalcididae in North America by the following characters: Hindtibia truncate distally, two hindtibial spurs present (Haltichellinae); marginal vein on anterior margin of wing, postmarginal and stigmal veins present, distinct (Haltichellini); scutellum with a median tooth on posterior margin, postmarginal vein $1.7\times$ as long as marginal vein, and tergite 1 without longitudinal carinae, coloration never green metallic.

***Belaspidia longicauda* Halstead,
NEW SPECIES
Figs. 1-9**

Holotype female.—Length 4.2 mm. Black, with orange markings. The following areas orange: mandibles, joint between scape and frons, joint between femora and tibiae of fore and middle leg, apex of tibiae, tarsi except for brown last tarsomere and claws, sternites, hypopygidium, ventral and latero-posterior margins of tergites, ventral margin of ovipositor sheath where bordered by epipygidium, marginal vein of forewing, and venation of hindwing. Compound eyes and pubescence silver, ocelli tan.

Eyes with short pubescence. Anterior ocellus round, separated from lateral ocelli by $1.7\times$ its diameter. Lateral ocelli oval, separated from margin of compound eye by $0.8\times$ their diameter. Labrum oval, slightly longer than wide, sublaterally with a depression, transversely microridged, ventral margin with a fringe of setae. Mandibles with a few setae on outer margin, left with 2 teeth, right with 3 teeth. Differentiation between clypeus and frons vague. Insertion of antennae $\frac{1}{3}$ the distance from the base of



Figs. 1–9. *Belaspidia longicauda*. 1, Head and antenna of female. 2, Pronotum, dorsal view. 3, Thorax of female. 4, Scutellum, dorsal view. 5, Abdomen of female. 6, Hind leg of female, small teeth on ventral margin omitted. 7, Venation (partial) of forewing. 8, Antenna of male. 9, Abdomen of male. Scale lines 0.5 mm.

labrum to imaginary line between ventral margin of compound eyes (Fig. 1). Scape reaching almost to ventral margin of anterior ocellus, widest at $\frac{1}{3}$ its length. Pedicel $1.5\times$ longer than wide. Annellus 1 and 2 short, wider than long. Flagellar segments longer than wide. Flagellum and club longer than height of head (lateral view). Scrobe cavity shallowly depressed, coriaceous, without pubescence. Area between antennae flat, distance $1.5\times$ antennal socket width, projecting into scrobe cavity as a raised triangle whose apex lies in the center of frons mediad of ventral margin of compound eyes. Frons at antennal insertions slightly rounded anteriorly (Fig. 1). Occiput medially emarginate for reception of anterior projection of pronotum.

Pronotum with posterior margin broadly emarginate, anterior medial margin slightly projected anteriorly, $5\times$ as wide as long (Fig. 2). Thorax convex dorsally (Fig. 3), coria-

ceous laterally, dorsally with dense, shallow, small punctures; moderately setose. Posterior margin of scutellum with a median triangular projection that is centrally concave in dorsal view (Fig. 4). Mesopleural acetabulum very shallow, almost flat. Tegula triangular, ventral margin straight. Metapleuron and propodeum laterally with shallow punctures, moderately setose. Mesepisternum coriaceous, without setae. Propodeum with 2 strong, laterally arching submedian longitudinal carinae. Remainder of propodeum with a low areolation of carinae, integument coriaceous. Spiracle crescent shaped, arched anteriorly, wider at each end.

Abdomen sessile, long, $1.7\times$ longer than length of head and thorax, apex acuminate, dorsal margin flat in lateral view (Fig. 5). Tergites with a thin shiny band on margins. T#1–4 dorsally punctate, remainder of abdomen except hypopygidium coriaceous. Hypopygidium smooth, heavily chitinized along median. Tergites (except T#1 and T#2–3 dorsally), epipygidium (except basal $\frac{1}{2}$), and ovipositor sheath with long dense setae. T#1 submedially with a patch of setae. Petiole $3\times$ as high as long, rectangular, anterior margin with a carina, laterally with a few vague longitudinal carinae.

Legs coriaceous, with short dense pubescence. Hindeoxa large, slightly longer than wide; its greatest width equal to that of hindfemur, dorsally with a triangular tooth which fits into posterior margin of metapleuron (Fig. 6). Hindfemur narrowly ovoid, $2\times$ as long as wide, ventral margin with an acute tooth near middle, ventral margin with many minute teeth from large tooth to apex (Fig. 6). Hindtibia anteriorly with an inner and outer carina extending to near apex.

Forewing extending posteriorly to near apex of epipygidium. Forewing and hindwing clear, densely setose. Postmarginal vein long, $1.7\times$ as long as marginal vein (Fig. 7). Stigmal vein $\frac{1}{4}$ as long as marginal vein. Hindwing with 3 hamuli.

Allotype male.—Length 3.8 mm. Similar to female but differs in compound eye col-

oration being brown, shape of antennae (Fig. 8), and shape of abdomen (Fig. 9).

Variation.—Body length of the female paratypes varies from 3.8 to 4.3 mm. The length and width of the scape in females varies slightly. One paratype with scape slightly longer and thinner than holotype, another with scape slightly shorter and wider. Two paratypes with length of abdomen shorter than holotype, $1.4\times$ as long as head and thorax.

Specimens examined.—Holotype, ♀, United States, California, Tulare Co., Ash Mountain, Kaweah Powerstation #3, VIII-19-1982, R. D. Haines, from Halstead collection, deposited in National Museum of Natural History, Washington, D.C. (USNM). Allotype, ♂, United States, California, Los Angeles Co., Tanbark Flat, VI-23-1950, on *Eriogonum*, from California Insect Survey, University of California, Berkeley (CIS) collection, deposited in USNM. Paratypes.—California, Fresno Co., Coalinga, Coalinga Mineral Springs Road, V-21-1982, R. F. Gill (1 ♀, from Halstead collection to California Academy of Sciences, San Francisco). Sacramento Co., 10 mi. NE Folsom, V-11-1960, on *Eriodictyon californicum*, M. S. Wasbauer (1 ♀, California State Collection of Arthropods, California Department of Food and Agriculture, Sacramento). San Bernardino Co., Cronise Valley, IV-29-1956, on *Prosopis*, M. S. Wasbauer (1 ♀, CIS). San Bernardino Co., Sheep Creek, V-27-1973, E. M. and J. C. Hall (1 ♀, University of California, Riverside (UCR)). Riverside Co., Gavilan, V-8, 12-1950, on *Eriogonum fasciculatum*, Timberlake (2 ♀, UCR).

Habitat.—The holotype was collected from a five mile long hydroelectric flume that runs through foothill woodland and chamise chaparral habitats at an elevation of 660 m (2200 ft). The paratype from Coalinga was collected in chaparral-foothill woodland habitat at an elevation of about 550 m (1800 ft), probably from *Eriogonum fasciculatum* (Gill, pers. comm.).

Etymology.—The species epithet, a noun in apposition, is Latin meaning "long tail." The name refers to the ovipositor sheath of the female.

DISCUSSION AND COMPARATIVE COMMENTS

The four species in the genus *Belaspidia* are: *obscura* Masi from Central and Southern Europe (Bouček 1951a, Peck et al. 1964), Syria, Turkey (Bouček 1951b, 1956) Crimea, Transcaucasus, Central Asia, and Iran (Nikolskaya 1952 [under the synonym *nigra* Masi]); *masii* Nikolskaya from Central Asia (Nikolskaya 1952); *meridionalis* Steffan from France (Steffan 1951a, 1951b) and *longicauda* n.sp. from California, USA.

The type species of *Belaspidia* (Masi 1916) is *obscura*, described from females. *Belaspidia nigra* was described from a male specimen (Masi 1927). Nikolskaya (1952) treated the *Belaspidia* of the United Soviet Socialist Republic; described *masii* and recognized *obscura* and *nigra*. Steffan (1951a) described *meridionalis* from Toulon, France. He treated the *Belaspidia* of France; recognized *meridionalis*, *obscura*, and *nigra* (Steffan 1951b). Nikolskaya (1960) recognized three world species: *obscura*, *masii*, and *meridionalis* with *nigra* synonymized under *obscura* by Bouček (1951b). Bouček (1951b, 1956) indicated that *meridionalis* might be a variety of *obscura*.

In Nikolskaya (1952), *longicauda* differs from *masii* in that the antennae are longer than head height, the funicular segments are longer than wide, the first 2 abdominal tergites have a thin, shiny band on posterior margin; and the ovipositor projects posteriorly from the epipygidium by the same length as T#1 dorsally. As with *masii*, *longicauda* has the hindfemur $\frac{1}{2}$ as wide as long. In Steffan (1951b), *longicauda* differs from *meridionalis* in that the left mandible is bidentate. The head and antennal characters are similar for both species. In both keys, *longicauda* differs from *obscura* in that the thorax is slightly, not highly convex, the

pronotum is 5 times as wide as long versus 3 times, and the wings are colorless versus slightly darkened.

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